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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,531	09/03/2004	Yoshikazu Ugai	033318-013	8951

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EXAMINER	
EWALD, MARIA VERONICA	
ART UNIT	**PAPER NUMBER**
1722	

DATE MAILED: 08/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/506,531	UGAI ET AL.	
	Examiner	Art Unit	
	Maria Veronica D. Ewald	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-12 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 03 September 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 9/04&7/06.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Ei Hara (U.S. 3,555,621). Ei Hara teaches a permanent magnet molding apparatus which is characterized by comprising: a transferable metal die unit including: a die having a cavity of desired cross-sectional shape in which filled, the cavity extending in groovelike form in a specific direction on a surface of the die (item 47 – figure 1; column 3, lines 60 – 65); a lid member placed against a facing surface of said die as if covering said cavity (column 3, lines 60 – 65; column 4, lines 1 – 5); and a pair of punches having the same cross-sectional shape as said cavity, said punches being positioned to fit in said cavity such that said punches close said cavity at both ends thereof, and said punches being made slidable in directions in which said punches go into contact with and become separated from the magnet molding material powder (items 4 and 5 – figure 1; column

3, lines 73 - 75; column 4, lines 49 – 51); pressurizing means for holding the metal die unit which has been transferred with said magnet molding material powder filled in said cavity and for pressurizing said magnet molding material powder by driving said two punches such that said two punches slide in their approaching directions (column 4, lines 49 – 51); and magnetic field generating means for magnetizing the magnet molding material powder pressurized in said cavity while applying a magnetic field thereto in a direction perpendicular to a direction of pressurization (column 4, lines 32 – 43); wherein the said permanent magnet molding apparatus is characterized in that said magnetic field generating means includes a pair of yokes located on an upper surface of the lid member and on a bottom surface of the die of said metal die unit (items 35 and 38 – figure 1; column 4, lines 1 – 5) and a coil wound around at least one of said yokes, wherein said yokes are movable in directions along said facing surface of the lid member and the die of said metal die unit (items 11 and 12 – figure 1; column 3, lines 40 – 45; column 4, lines 33 – 35); wherein the pair of yokes are attracted by each other and sandwich said lid member and said die to press against said facing surface when said coil is actuated (figure 1; column 4, lines 1 – 5).

With respect to claims 4 – 6, Ei Hara also teaches that the metal die unit has a gap of 0.01 to 0.1 mm in part of said facing surface (figure 1); wherein said metal die unit has a base frame on which said die is located and said pair of punches has pushing parts at one end which are pressed by said pressurizing means and caused while being guided along the extending direction of said slide on said base frame cavity (figure 1; column 4, lines 49 – 51); wherein said pressurizing means is a pair of cylinders situated

along the extending direction of said cavity, wherein pistons of said cylinders extend face to face with end surfaces of the pushing parts of said punches to push said pushing parts, causing said punches to slide in their mutually approaching directions (items 4 and 5 – figure 1; column 4, lines 49 – 51; column 5, lines 44 – 46).

Claims 1 – 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Sagawa, et al. (U.S. 5,762,967). Sagawa, et al. teach a permanent magnet molding apparatus which is characterized by comprising: a transferable metal die unit including: a die having a cavity of desired cross-sectional shape in which filled, the cavity extending in groovelike form in a specific direction on a surface of the die (item 1 – figure 3); a lid member placed against a facing surface of said die as if covering said cavity (item m2 – figure 3); and a pair of punches having the same cross-sectional shape as said cavity, said punches being positioned to fit in said cavity such that said punches close said cavity at both ends thereof, and said punches being made slidable in directions in which said punches go into contact with and become separated from the magnet molding material powder (items 2a and 2b – figure 3; column 4, lines 35 – 37); pressurizing means for holding the metal die unit which has been transferred with said magnet molding material powder filled in said cavity and for pressurizing said magnet molding material powder by driving said two punches such that said two punches slide in their approaching directions (column 4, lines 35 – 42; column 5, lines 23 – 30, 35 – 40); and magnetic field generating means for magnetizing the magnet molding material powder pressurized in said cavity while applying a magnetic field thereto in a direction

perpendicular to a direction of pressurization (column 5, lines 40 – 45); wherein the said permanent magnet molding apparatus is characterized in that said magnetic field generating means includes a pair of yokes located on an upper surface of the lid member and on a bottom surface of the die of said metal die unit (items 3 and 18 – figure 3) and a coil wound around at least one of said yokes, wherein said yokes are movable in directions along said facing surface of the lid member and the die of said metal die unit (column 5, lines 40 – 45); wherein the pair of yokes are attracted by each other and sandwich said lid member and said die to press against said facing surface when said coil is actuated (figure 3; column 5, lines 20 – 30, 60 – 65; column 6, lines 1 – 5).

With respect to claims 4 – 6, Sagawa, et al. also teach that the metal die unit has a gap of 0.01 to 0.1 mm in part of said facing surface (figure 3); wherein said metal die unit has a base frame on which said die is located and said pair of punches has pushing parts at one end which are pressed by said pressurizing means and caused while being guided along the extending direction of said slide on said base frame cavity (figure 3; column 5, lines 20 – 30); wherein said pressurizing means is a pair of cylinders situated along the extending direction of said cavity, wherein pistons of said cylinders extend face to face with end surfaces of the pushing parts of said punches to push said pushing parts, causing said punches to slide in their mutually approaching directions (column 5, lines 20 – 25, 45 – 55).

With respect to claims 7 – 8, Sagawa, et al. further teach that the molding apparatus is further comprised of a grasping member which engages with said base

frame, wherein said grasping member fits slidably in the extending direction of said cavity and said lid member is forced against said die and held in position via a locking mechanism between said base frame and said grasping member; wherein said grasping member is divided into two portions in its sliding direction (item 11 – figure 3; column 4, lines 60 – 63).

Claims 1 – 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Okumura, et al. (U.S. 6,602,352). Okumura, et al. teach a permanent magnet molding apparatus which is characterized by comprising: a transferable metal die unit including: a die having a cavity of desired cross-sectional shape in which filled, the cavity extending in groovelike form in a specific direction on a surface of the die (item 12 – figures 1 and 2); a lid member placed against a facing surface of said die as if covering said cavity (figure 1); and a pair of punches having the same cross-sectional shape as said cavity, said punches being positioned to fit in said cavity such that said punches close said cavity at both ends thereof, and said punches being made slidable in directions in which said punches go into contact with and become separated from the magnet molding material powder (items 12 and 14 – figures 1 and 2; column 7, lines 22 – 25); pressurizing means for holding the metal die unit which has been transferred with said magnet molding material powder filled in said cavity and for pressurizing said magnet molding material powder by driving said two punches such that said two punches slide in their approaching directions (column 8, lines 5 – 15); and magnetic field generating means for magnetizing the magnet molding material powder

pressurized in said cavity while applying a magnetic field thereto in a direction perpendicular to a direction of pressurization (column 8, lines 10 – 15, 20 – 25); wherein the said permanent magnet molding apparatus is characterized in that said magnetic field generating means includes a pair of yokes located on an upper surface of the lid member and on a bottom surface of the die of said metal die unit (figure 1) and a coil wound around at least one of said yokes, wherein said yokes are movable in directions along said facing surface of the lid member and the die of said metal die unit (item 26 – figures 1 and 2; column 8, lines 20 – 25, 30 – 35); wherein the pair of yokes are attracted by each other and sandwich said lid member and said die to press against said facing surface when said coil is actuated (figure 1).

With respect to claims 4 – 6, Okumura, et al. also teach that the metal die unit has a gap of 0.01 to 0.1 mm in part of said facing surface (figures 1 and 2); wherein said metal die unit has a base frame on which said die is located and said pair of punches has pushing parts at one end which are pressed by said pressurizing means and caused while being guided along the extending direction of said slide on said base frame cavity (figures 1 and 2; column 8, lines 5 – 15); wherein said pressurizing means is a pair of cylinders situated along the extending direction of said cavity, wherein pistons of said cylinders extend face to face with end surfaces of the pushing parts of said punches to push said pushing parts, causing said punches to slide in their mutually approaching directions (items 12 and 14 – figures 1 and 2).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ei Hara or Okumura, et al. in view of Maekawa, et al. (U.S. 3,663,147). Ei Hara and Okumura, et al. teach the characteristics previously described but do not teach that the pushing parts have rollers.

In a method to produce tablets via compression molding, Maekawa, et al. teaches the use of a rotary press mold with upper and lower punches. The press mold utilizes a series of rollers attached to the punches themselves and guided on tracking rails (column 2, lines 55 – 58). The compression rollers are used to compress and exert pressure on the punch members as the tablets are formed (items 61 – 64 – figures 6 and 7). The use of the compression rollers allows for high velocity compression and short compression time, thus, resulting in increased production (column 1, lines 34 – 36). This reads on the Applicant's claims that the pushing parts have rotatably mounted rollers, wherein the pressurizing means has first guiding surfaces for guiding said rollers and second guiding surfaces formed immediately adjacent to the respective first guiding surfaces, wherein the distance between the said second guiding surfaces is smaller than the distance between said first guiding surfaces and said second guiding surfaces

pressed against said rollers, causing said punches to slide in their mutually approaching directions.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the apparatus of Ei Hara or Okumura, et al. with the rollers and tracking rails of Maekawa, et al. for the purpose of causing the punches to move towards one another, thereby, compressing the powder, while such rollers allow high compression velocity and short dwell time, resulting in increased production, as taught by Maekawa, et al.

Claims 9 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sagawa, et al. in view of Maekawa, et al. (U.S. 3,663,147). Sagawa, et al. teach the characteristics previously described, but do not teach that the pushing parts have rollers.

In a method to produce tablets via compression molding, Maekawa, et al. teaches the use of a rotary press mold with upper and lower punches. The press mold utilizes a series of rollers attached to the punches themselves and guided on tracking rails (column 2, lines 55 – 58). The compression rollers are used to compress and exert pressure on the punch members as the tablets are formed (items 61 – 64 – figures 6 and 7). The use of the compression rollers allows for high velocity compression and short compression time, thus, resulting in increased production (column 1, lines 34 – 36). This reads on the Applicant's claims that the pushing parts have rotatably mounted rollers, wherein the pressurizing means has first guiding surfaces for guiding said rollers

and second guiding surfaces formed immediately adjacent to the respective first guiding surfaces, wherein the distance between the said second guiding surfaces is smaller than the distance between said first guiding surfaces and said second guiding surfaces pressed against said rollers, causing said punches to slide in their mutually approaching directions.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the apparatus of Sagawa, et al. with the rollers and tracking rails of Maekawa, et al. for the purpose of causing the punches to move towards one another, thereby, compressing the powder, while such rollers allow high compression velocity and short dwell time, resulting in increased production, as taught by Maekawa, et al.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVE

Joseph S. Del Sole

JOSEPH S. DEL SOLE
PRIMARY EXAMINER

7/27/06